

1. A method of treating a dental root canal which comprises the steps of:
 - (a) gaining access to the root canal;
 - (b) introducing a flowable photosensitiser into the root canal;
 - (c) activating the photosensitiser by exposing the walls of the root canal to light via an optical fibre within the root canal to kill bacteria within the root canal and pulp chamber; and
 - (d) obturating the root canal.
2. A method according to claim 1 wherein the root canal is obturated with gutta percha, silver or titanium points.
3. A method according to claim 2 in which the root canal is obturated with an obturation device comprising gutta percha carried on a rod-like carrier, the device being shaped and dimensioned so that on forcing it into the canal, the gutta percha is deformed and fills the canal.
4. A method according to claim 1 in which the root canal is obturated with a curable filling material.
5. A method according to claim 4 wherein the curable filling material is cured by irradiation with light through an optical fibre within the root canal.
6. A method according to claim 5 wherein the same optical fibre is used for activating the photosensitiser and the curable filler material.
7. A method according to any one of the preceding claims wherein the optical fibre has a substantially isotropic tip.

8. A method according to any one of the preceding claims in which the optical fibre has a spherical or cylindrical portion at or close to the distal end to spread radiation around and along the canal.

9. A kit of parts for use in sterilising and sealing a dental root canal (2), said kit of parts comprising:-

- (a) a flowable photosensitiser which is absorbed by bacteria;
- (b) an optical fibre (4,20) having a portion (5,21) at or close to the distal end which is shaped to spread radiation around and along the canal, said fibre being adapted for introduction into a root canal so that the tip is capable of reaching the apical third of the root canal, said optical fibre being connectable proximally with means (41) for generating laser light capable of being absorbed by the photosensitiser; and
- (c) obturating means for sealing the canal.

10. A kit according to claim 9 wherein the flowable sensitiser comprises a dilute aqueous solution of toluidine blue.

11. A kit according to claim 9 wherein the obturating means comprises a preformed plug of gutta percha or silver or titanium points.

12. A kit according to any one of claims 9 to 11 wherein the flowable sensitiser is contained in a cartridge (7,11) which includes a delivery tube (9,10) for introducing the photosensitiser into the canal.

13. A kit according to claim 9 wherein the obturating means comprises a flowable, curable sealing composition.



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